

SSOW – Use of bench or angle grinders.

Written by:	Vic Hargreaves (Regional SHEQ Advisor).
Scope of Activity:	This safe system of work covers use of bench or angle grinders.
Applicable Risk Assessment:	RA 007 – Use of bench or angle grinders.
Hazards Expected:	As identified in the applicable risk assessment.
Mandatory PPE:	Overalls Safety boots Leather Faced Cut Resistant Glove - GL5486 Leather heat retardant apron - AP8862/STD/STD Tight fitting goggles - VP5600 or full face visor (EN 166 mechanical strength B as a Minimum) Ear defenders - EP6100
Additional PPE (as required):	Heat retardant hat (where there is risk of sparks/ molten metal falling from above) Dust mask (if excessive amount of grinding is being undertaken) Bump cap (if working in area/ position with poor head clearance)
Resources:	Competent engineer (s) Grinder (110V or Pneumatic) Extension Cable (where applicable) Transformer (where applicable) RCD (electrical powered tools) Barrier tape

Manning:

Field service engineer(s) reporting to an Engineering Manager who is responsible for providing information, instruction, supervision and ensuring that the engineers are suitably trained. In turn the Engineering Manager reports to the Senior / Regional Business Manager who in turn reports to the Regional Engineering Director.

Engineers will take full responsibility for:

- Customer contact, authority to carry out the task, signing and implementing customer work permits and following customer site rules;
- Establishing with the customer and working in a safe area and environment;
- Ensuring that a risk assessment is in place, is suitable and sufficiently covers all hazards;
- Familiarising themselves with the equipment operator and maintenance manuals;
- Ensuring all maintenance and repairs are completed in accordance with the manufacturer's manual.

Safe Working Method:

- Any person undertaking grinding must have completed a Forkway approved abrasive wheels training course;
- Upon arrival on site you must sign in where applicable and make contact with the designated site contact. You must ensure you have completed any necessary inductions and any permits to work or other documentation required by customer have been completed;

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- Agree with the site contact a designated safe working area in which to carry out all operation
 - Avoid work in areas with high volumes of pedestrian movements;
 - Where this cannot be avoided, a cordon should be made around the working area to keep persons a safe distance away;
 - Check with customer contact to confirm work area is not in a flammable or explosive atmosphere;
 - Check the area with customer contact for any materials which may be flammable or combustible. Remove these before starting or move to an alternative area;
 - Ensure the work area has good levels of ventilation;
 - Avoid using the grinder in cold conditions;
- Discuss the use of the grinder with the customer contact and ensure they inform their employees to stay clear of the work area throughout the task;
- Check the object/ component you are going to be grinding/ cutting
 - Ensure it is free from any chemicals/ residues;
 - Ensure it is not coated with lead or chromate paints or is galvanised or cadmium plated;
 - Assess the risk of combustible items or components nearby on equipment under repair catching fire
 - Ideally remove object/ component from equipment under repair;
 - If the object/ component cannot be removed, remove combustible components nearby;
 - If neither is achievable make use of fire retardant blankets and use a second person equipped with a fire extinguisher to fire watch;
 - Assess whether there is a likelihood of the object you are grinding/ cutting or adjoining objects suddenly moving or falling
 - Ensure objects that could suddenly move or fall are suitably supported;
 - Ensure the area is cordoned off and no persons remain below or in the vicinity nearby;
 - Ensure it is not in close proximity to or part of a closed tank, drum or vessel. You must not grind these under any circumstance;
 - Ensure it is not in close proximity to a pneumatic tyre. Remove wheel or deflate tyre if this cannot be avoided;
- Complete pre use checks on the grinder and associated equipment (extension cables, transformer, etc.) following manufacturer's instructions, ensuring especially that:
 - Guards are in place, free from defects and are adjusted to the correct angle;
 - Grinding discs, stones, etc. are in good condition, in date, free from defects and are the correct type for both the grinder and the type of grinding being undertaken;
 - Ensure items are CE Marked;
 - Ensure items are within current PAT test (12 months);
 - If defects are found, take equipment out of service and affix a do not use tag. Inform line manager;
- Complete pre-use checks on all PPE;
 - Ensure items are free from defects;
 - Ensure all PPE is clean and free from flammable contaminants or residues
 - Ensure all items are tight fitting;
 - Ensure items are CE marked and to the correct standards;
- Ensure items of loose clothing are removed or tied back. Do the same for long hair or anything else which could become entangled in the grinder;

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- Complete grinding operation following training and manufacturer's operating instructions;
 - Do not apply pressure to the grinding disc/ stone by pushing it hard into the material you are grinding or pushing the material hard into the grinding disc/ stone;
 - Do not grind towards your person;
 - Ensure you have a sufficient grip, using two hands to operate the grinder;
- If the grinding disc or stone needs replaced throughout task or any other adjustments are required allow grinder to come to a halt, isolate it and disconnect it from power supply before attempting to change or adjust anything;
- If trigger time is likely to exceed 1 hour or grinding has become a routine task (daily/ weekly activity) contact line manager before proceeding;
- Avoid touching face or eyes with your gloves and wash hands immediately after task to remove any fine dust particles. Keep goggles or dust mask (if applicable) on when cleaning up metal dusts;
- Once the task is complete, monitor area for at least half an hour before leaving site and remain vigilant for signs of smoke or smouldering during this time. Consider using water to douse and cool areas that have been heated;